



US Army Corps
of Engineers
Baltimore District

CONSTRUCTION SPECIFICATIONS

MAINTENANCE AND RESTORATION OF THE ROBERT F. KENNEDY GRAVESITE

ARLINGTON NATIONAL CEMETERY,
ARLINGTON, VIRGINIA

INVITATION NO. DACA31-02-B-0001

CONTRACT NO.

DATE: NOV 19, 2001

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SECTION 01010

GENERAL REQUIREMENTS

03/99

PART 1 GENERAL

1.1 ADMINISTRATIVE REQUIREMENTS

1.1.1 PROGRESS SCHEDULING AND REPORTING: (AUG 1999)

The Contractor, shall within five days or as otherwise determined by the Contracting Officer, after date of commencement of work, submit for approval a practicable progress schedule showing the manner in which he intends to prosecute the work. Contractor prepared form shall contain the same information as shown on the attached NADB Form 1153 ("Physical Construction Progress Chart" (CENAB-CO-E)

1.1.2 PAYMENTS TO CONTRACTORS: (NOV 1976)

For payment purposes only, an allowance will be made by the Contracting Officer of 100 percent of the invoiced cost of materials or equipment delivered to the site but not incorporated into the construction, pursuant to the Contract Clause entitled "PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS". The Contracting Officer may also, at his discretion, take into consideration the cost of materials or equipment stored at locations other than the jobsite, when making progress payments under the contract. In order to be eligible for payment, the Contractor must provide satisfactory evidence that he has acquired title to such material or equipment, and that it will be utilized on the work covered by this contract. Further, all items must be properly stored and protected. Earnings will be computed using 100% of invoiced value. (CENAB-CO-E)

1.1.3 PURCHASE ORDER: (SEP 1975 REV JUN 1991)

One readable copy of all purchase orders for material showing firm names and addresses, and all shipping bills, or memoranda of shipment received regarding such material, shall be furnished to the appointed Contracting Officer's Representative as soon as issued. Such orders, shipping bills or memoranda shall be so worded or marked that all material can be definitely identified on the drawings. At the option of the Contractor, the copy of the purchase order may or may not indicate the purchase price. (CENAB-CO-E)

1.1.4 NEGOTIATED MODIFICATIONS: (OCT 84)

Whenever profit is negotiated as an element of price for any modification to this contract with either prime or subcontractor, a reasonable profit shall be negotiated or determined by using the OCE Weighted Guidelines method outlined in EFARS 15.902. (Sugg. NAB 84-232)

1.1.5 PHOTOGRAPHS (SEP 85 REV JUN 1991)

The Contractor shall furnish 8" x 10" 203.2 mm x 254 mm commercial grade color photographs of the project (with negatives) to the Contracting Officer. These photographs shall be in the

quantities and at the intervals as directed by the Contracting Officer. (CENAB-CO)

1.2 JOB CONDITIONS

1.2.1 LAYOUT OF WORK: (APR 1972)

The Contractor shall lay out his work and shall be responsible for all measurements in connection therewith. The Contractor shall furnish, at his own expense, all templates, platforms, equipment, tools and materials and labor as may be required in laying out any part of the work. The Contractor will be held responsible for the execution of the work to such lines and elevations shown on the drawings or indicated by the Contracting Officer. (CENAB)

1.2.2 TRANSPORTATION FACILITIES:

ARLINGTON NATIONAL CEMETERY, VA.

Project site is accessed by George Washington Memorial Parkway, U.S. Route 395, U.S. Route 50, State Route 244 (Columbia Pike). Transportation to the cemetery is via bus service and motor freight.

1.2.3 AVAILABILITY OF UTILITIES INCLUDING LAVATORY FACILITIES: (JUN 1980)

It shall be the responsibility of the Contractor to provide all utilities he may require during the entire life of the contract. He shall make his own investigation and determinations as to the availability and adequacy of utilities for his use for construction purposes and domestic consumption. He shall install and maintain all necessary supply lines, connections, piping, and meters if required, but only at such locations and in such manner as approved by the Contracting Officer. Before final acceptance of work under this contract, all temporary supply lines, connections and piping installed by the Contractor shall be removed by him in a manner satisfactory to the Contracting Officer. (CENAB)

1.2.4 Utility Markings (Aug 1999)

The Contractor shall contact the installation/DPW and the One-Call Service, a minimum of 14 days and 48 hours, respectively, prior to any excavation, the Post DPW and Miss Utility requesting utility location markings. The Contractor shall not proceed with any excavation until all utilities, including abandoned utilities, have been marked to the satisfaction of the Contracting Officer. Prior to requesting the marking of utilities, the Contractor shall stake out proposed excavations and limits of work with white lines ("White Lining"). It is the Contractor's responsibility to ensure that all permits (excavation or otherwise, including DPW permits) are current and up-to-date without expiration. In addition to the above requirements the Contractor shall:

- a) Visually survey and verify that all utility markings are consistent with existing appurtenances such as manholes, valve boxes, poles, pedestals, pad-mounted devices, gas meters, etc. prior to any excavation.
- b) Hand dig test holes to verify the depth and location of all utilities prior to any mechanical excavation within the limits of work. Other non-damaging methods for utility verification, as indicated in (d) below, may be considered subject to approval by the Contracting Officer. Also, verify that any abandoned utilities are not active.

- c) Preserve all utility markings for the duration of the project to the furthest extent possible.
- d) When excavation is performed within 2 feet 0.6096 m of any utility line, a non-damaging method of excavation shall be used. The non-damaging method shall be hand digging. Other non-damaging methods, such as, soft digging, vacuum excavation, pneumatic hand tools, may be considered subject to approval by the Contracting Officer.
- e) Regardless of the type of excavation, the Contractor shall notify the Contracting Officer a minimum of 72 hours prior to any excavation activity. Failure to notify the Contracting Officer can result in the issuance of a "Stop Work" order, which shall not be justification for contract delay or time extension. The Government reserves the right to have personnel present on site during any type of excavation.
- f) The Contractor's Quality Control System Manager shall ensure that all excavation requirements herein are met at the time of the preparatory phase of quality control, and that the excavation procedures are reviewed during the preparatory phase meeting. This preparatory phase of control shall also establish and document contingency plans and actions to be followed in the event that existing utilities are damaged or interrupted. Locations of shut off or isolation devices along with other safety features shall be established and their operation reviewed.
- g) Any work other than excavation in the vicinity of a utility, that could damage or interrupt a utility, such as, exterior or interior work near transformers, power lines, poles, above ground gas lines, gas meters, etc., shall be done with extreme care. The Contractor shall specifically note during the preparatory phase of quality control, the construction techniques to be used to preclude damaging or interrupting any utility. This preparatory phase of control shall also establish and document contingency plans and actions to be followed in the event that existing utilities are damaged or interrupted. Locations of shut off or isolation devices along with other safety features shall be established and their operation reviewed.
- h) The Contractor shall complete a risk assessment, using the attached checklist, at least one week prior to the start of any excavation or other work in the vicinity of a utility. The risk assessment shall be submitted for government approval prior to any excavation or other work in the vicinity of a utility. A risk assessment shall be completed for each definable feature of work encountering utilities and shall include all utilities anticipated to be encountered.

1.2.5 COMPLIANCE WITH ANC REGULATIONS: (JUL 1980)

The site of the work is at Arlington National Cemetery and all rules and regulations issued by the Supervisor covering general safety, security, sanitary requirements, pollution control, traffic regulations and parking, shall be observed by the Contractor. Information regarding these requirements may be obtained by contacting the Contracting Officer, who will provide such information or assist in obtaining same from appropriate authorities. (MEMO)

1.2.6 MAINTENANCE OF ACCESS: (DEC 1975)

The Contractor shall not block passage through sidewalks, roads, or entranceways to the cemetery during performance of work under this contract. No construction materials are to be

stored at the restoration site at any time.(CENAB)

1.2.7 PROTECTION OF GOVERNMENT PROPERTY AND PERSONNEL: (DEC 1975 REV JUN 1991)

1.2.7.1 Equipment Protection

All existing Government owned equipment within the work area shall be protected by the Contractor from damage caused by renovation operations. As a minimum, the Contractor shall cover all non-Contractor owned elements, with protective covers prior to commencement of demolition operations.

1.2.7.2 Damaged Facilities

All existing facilities damaged as a result of the construction activities shall be restored to a condition equivalent to that prior to the start of work. Materials for replacement, repairing, patching, restoration, and similar type work shall match existing.

1.2.7.3 Personnel Protection

The Contractor shall protect personnel by installing safety rails and/or barricades as applicable to prevent injury from unauthorized entry into work areas. Warning signs shall be erected as necessary to indicate construction areas or hazardous zones. Work shall proceed in such manner as to prevent the undue spread of dust and flying particles.

1.2.7.4 Additional Measures

The Contractor shall take such additional measures as may be directed by the Contracting Officer to prevent damage or injury to Government property or personnel. (CENAB)

1.2.8 ASBESTOS

1.2.8.1 ASBESTOS HANDLING AND REMOVAL: (FEB 85)

ALTERNATE 1

Through site investigations, friable asbestos has not been found, however if asbestos is encountered, its testing, removal and disposal is covered in "CHANGES" clause of the Contract Clauses. (CENAB)

1.2.9 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER:

1.2.9.1 Procedure for Time Extensions

This provision specifies the procedure for determination of time extensions for unusually severe weather in accordance the contract clause entitled "Default: (Fixed Price Construction)". In order for the Contracting Officer to award a time extension under this clause, the following conditions must be satisfied:

- a. The weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.

b. The unusually severe weather must actually cause a delay to the completion of the project. The delay must be beyond the control and without the fault or negligence of the Contractor.

1.2.9.2 Monthly Schedule

The following schedule of monthly anticipated adverse weather delays is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location and will constitute the base line for monthly weather time evaluations. The contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities.

MONTHLY ANTICIPATED ADVERSE WEATHER DELAY WORK DAYS BASED ON (5) DAY WORK WEEK

ARLINGTON NATIONAL CEMETERY

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
4	5	6	7	6	6	6	5	2	5	4	3

1.2.9.3 Notice to Proceed (NTP)

Upon acknowledgment of the Notice to Proceed (NTP) and continuing throughout the contract, the Contractor will record on the daily CQC report, the occurrence of adverse weather and resultant impact to normally scheduled work. Actual adverse weather delay days must prevent work on critical activities for 50 percent or more of the contractor's scheduled work day. The number of actual adverse weather delay days shall include days impacted by actual adverse weather (even if adverse weather occurred in previous month), be calculated chronologically from the first to the last day of each month, and be recorded as full days. If the number of actual adverse weather delay days exceeds the number of days anticipated in paragraph "Monthly Schedule", above, the Contracting Officer will convert any qualifying delays to calendar days, giving full consideration for equivalent fair weather work days, and issue a modification in accordance with the contract clause entitled "Default (Fixed Price Construction)".

1.2.10 WORKING HOURS: (DEC 93)

It shall be the Contractors responsibility to obtain the working hours other than the normal five (5) day work week 6:30 am to 5:30 pm from Arlington National Cemetery. (CENAB-CO-SQ)

1.3 SAFETY

1.3.1 GENERAL

Worker safety is of paramount importance. The Contractor shall comply with the Contract Clause in the Solicitation entitled ACCIDENT PREVENTION, including the U.S. Army Corps of Engineers Safety and Health Requirements Manual referred to therein in addition to the provisions of this specification.

1.3.1.1 ACCIDENTS

Chargeable accidents are to be investigated by both Contractor personnel and the Contracting Officer.

1.3.1.2 ACCIDENT REPORTING, ENG FORM 3394

Section 1, Paragraph 01.D, of EM 385-1-1 (3 Sep 1996) "U.S. Army Corps of Engineers Safety and Health Requirements Manual" and the Contract Clause entitled ACCIDENT PREVENTION are amended as follows: The prime Contractor shall report on Eng Form 3394, supplied by the Contracting Officer, all injuries to his employees or subcontractors that result in lost time and all damage to property and/or equipment in excess of \$2,000 per incident. Verbal notification of such accident shall be made to the Contracting Officer within 24 hours. A written report on the above noted form shall be submitted to the Contracting Officer within 72 hours following such accidents. The written report shall include the following:

a. A description of the circumstances leading up to the accident, the cause of the accident, and corrective measures taken to prevent recurrence.

b. A description of the injury and name and location of the medical facility giving examination and treatment.

c. A statement as to whether or not the employee was permitted to return to work after examination and treatment by the doctor, and if not, an estimate or statement of the number of days lost from work. If there have been days lost from work, state whether or not the employee has been re-examined and declared fit to resume work as of the date of the report.

1.3.1.3 OSHA Requirements

1.3.1.4 OSHA Log

A copy of the Contractor's OSHA Log of Injuries shall be forwarded monthly to the Contracting Officer.

1.3.1.5 OSHA Inspections:

Contractors shall immediately notify the Contracting Officer when an OSHA Compliance official (Federal or State representative) presents his/her credentials and informs the Contractor that the workplace will be inspected for OSHA compliance. Contractors shall also notify the Contracting Officer upon determination that an exit interview will take place upon completion of the OSHA inspection. (NABSA OCT 05, 1976)

1.4 CONTRACTOR QUALITY CONTROL

1.4.1 GENERAL

The Contractor shall provide and maintain an effective quality control program that complies with the Contract Clause entitled "Inspection of Construction." The CQC Program through inspection and reporting shall demonstrate and document the extent of compliance of all work with the standards and quality established by the contract document. The burden of proof of contract compliance is placed on the Contractor and not assumed by the Government. The Contractor's Quality Control will not be accepted without question. The Contractor's Quality Control program shall include daily inspections and provide for a daily report of CQC activity.

1.4.2 CONTROL

Contractor Quality Control (CQC) is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. The controls shall be adequate to cover all construction operations, including both on-site and off-site fabrication, and will be keyed to the proposed construction sequence. At least three phases of control shall be conducted by the CQC System Manager for each definable feature of work as follows:

1.4.2.1 Preparatory Phase

This phase shall be performed prior to beginning work on each definable feature of work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase shall include:

- a) A review of each paragraph of applicable specifications, reference codes, and standards. A copy of those sections of referenced codes and standards applicable to that portion of the work to be accomplished in the field shall be made available by the Contractor at the preparatory inspection. These copies shall be maintained in the field and available for use by Government personnel until final acceptance of the work.**
- b) A review of applicable contract drawings, if any.**
- c) A check to assure that all materials and/or equipment have been tested, submitted, and approved.**
- d) Review of provisions that have been made to provide required control inspection and testing.**
- e) Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.**
- f) A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.**
- g) A review of the appropriate activity hazard analysis to assure safety requirements are met.**
- h) Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.**
- i) A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.**
- j) Discussion of the initial control phase.**
- k) The Government shall be notified at least 24 hours in advance of beginning the preparatory control phase. This phase shall include a meeting conducted by the**

CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC System Manager and attached to the daily CQC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

1.4.2.2 Initial Phase

This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:

- a) A check of work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.
- b) Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing.
- c) Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.
- d) Resolve all differences.
- e) Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.
- f) The Government shall be notified at least 24 hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the daily CQC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.
- g) The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.

1.4.2.3 Follow-up Phase

Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work which may be affected by the deficient work. The Contractor shall not build upon nor conceal non-conforming work.

1.4.2.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases shall be conducted on the same definable features of work if: the quality of on-going work is unacceptable; if there are changes in the applicable CQC staff, onsite production supervision or work crew; if work on a definable feature is resumed after a substantial period of inactivity; or if other problems develop.

1.4.3 CONTRACTOR QUALITY CONTROL PLAN

1.4.3.1 CQC Plan Submittal

Not later than 14 days after receipt of Notice To Proceed the Contractor shall submit to the Contracting Officer for approval a Contractor Quality Control (CQC) Plan showing proposed implementation of the requirements of the Contract Clause titled "Inspection of Construction." The plan shall identify personnel, procedures, control, instructions, test, records, and forms to be used. Construction will be permitted to begin only after acceptance of the CQC Plan.

1.4.3.2 CQC Manager

The Contractor shall identify as CQC System Manager an individual within the onsite work organization who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The CQC System Manager shall be a construction person with a minimum of 5 years in related work. This CQC System Manager shall be on the site at all times during construction and shall be employed by the prime Contractor. The CQC System Manager shall be assigned as System Manager but may have duties as project superintendent in addition to quality control. An alternate for the CQC System Manager shall be identified in the plan to serve in the event of the System Manager's absence. The requirements for the alternate shall be the same as for the designated CQC System Manager.

1.4.4 DOCUMENTATION

The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers and shall be on an acceptable form that includes, as a minimum, the following information:

- a) Contractor/subcontractor and their area of responsibility.
- b) Operating plant/equipment with hours worked, idle, or down for repair.
- c) Work performed each day, giving location, description, and by whom.
- d) Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase shall be identified (Preparatory, Initial, Follow-up). List deficiencies noted along with corrective action.
- e) Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.
- f) Submittals and deliverables reviewed, with contract reference, by whom, and action taken.
- g) Off-site surveillance activities, including actions taken.
- h) Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- i) Instructions given/received and conflicts in plans and/or specifications.
- j) Contractor's verification statement.

These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within 24 hours after the date covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every 7 days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC System Manager. The report from the CQC System Manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

1.4.5 WORK DEFICIENCIES

The Contractor shall not build upon or conceal non-conforming work. If deficiencies indicate that the Contractor's Quality Control is not adequate or does not produce the desired results, corrective actions shall be taken by the Contractor. If the Contractor does not promptly make the necessary corrections, the Contracting Officer may issue an order stopping all or any part of the work until satisfactory corrective action has been taken. Payment for deficient work will be withheld until work has been satisfactorily corrected or other action is taken pursuant to the Contract Clause entitled, "Inspection of Construction." If recurring deficiencies in an item or items indicated that the quality control is not adequate, such corrective actions shall be taken as directed by the Contracting Officer.

1.4.6 FORMS: Sample forms are attached at the end of this section.

1.5 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted:

SD-01 Preconstruction Submittals

Title Evidence.

Proof of purchase for equipment and/or materials.

Invoice Copies.

Proof of rental equipment costs.

Payment Evidence.

Proof of full payment.

Checklist; G AR

A Risk Assessment for excavation and other work in the vicinity of utilities.

OSHA Log.

A log shall be reported monthly for injuries.

CQC Program; G AR.

A program that complies with the Contract Clause entitled "Inspection of Construction."

Photographs.

203.2 mm x 254 mm Commercial grade color photographs.

SD-05 Design Data

Change Notification.

Any changes made by the Contractor.

Progress Schedule; G AR.

A schedule that shows the manner in which the Contractor intends to prosecute the work.

Modified Chart; G AR.

Prepared when changes are authorized that result in contract time extensions.

1.5.1 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.5.1.1 Government Approved

Governmental approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Contracting Officer. Within the terms of the Contract Clause entitled "Specification and Drawings for Construction," they are considered to be "shop drawings."

1.5.1.2 Information Only

All submittals not requiring Government approval will be for information only. They are not considered to be "shop drawings" within the terms of the Contract Clause referenced above.

1.5.2 APPROVED SUBMITTALS

The approval of submittals by the Contracting Officer shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailed and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the CQC requirements of this contract, is responsible for the dimensions and design of adequate connections, details and satisfactory construction of all work. After submittals have been approved by the Contracting Officer, no

resubmittal for the purpose of substituting materials or equipment will be given consideration unless accompanied by an explanation as to why a substitution is necessary.

1.5.3 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the Contracting Officer and promptly furnish a corrected submittal in the form and number of copies as specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, notice as required under Contract Clause entitled "Changes" shall be given promptly to the Contracting Officer.

1.5.4 GENERAL

The Contractor shall submit all items listed on the Submittal Register (ENG Form 4288) or specified in the other sections of these specifications. The Contracting Officer may request submittals in addition to those listed when deemed necessary to adequately describe the work covered in the respective sections. Submittals shall be made in the respective number of copies and submitted to the Contracting Officer. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor and each respective transmittal form (ENG Form 4025) shall be stamped, signed and dated by the Contractor certifying that the accompanying submittal complies with the contract requirements. Proposed deviations from the contract requirements shall be clearly identified. Submittals requiring Government approval shall be scheduled and made prior to the acquisition of the material or equipment covered thereby.

1.5.5 SUBMITTAL REGISTER: (ENG FORM 4288)

At the end of this section is one set of ENG Form 4288 listing items of equipment and materials for which submittals are required by the specifications; this list may not be all inclusive and additional submittals may be required. The Contractor will also be given the submittal register files, containing the computerized ENG Form 4288 and instructions on the use of the files. These submittal register files will be furnished on a separate diskette. Columns "c" through "f" have been completed by the Government; the Contractor shall complete columns "a" and "g" through "i" and submit the forms (hard copy plus associated electronic file) to the Contracting Officer for approval within 30 calendar days after Notice to Proceed. The Contractor shall keep this diskette up-to-date and shall submit it to the Government together with the monthly payment request. The approved submittal register will become the scheduling document and will be used to control submittals throughout the life of the contract. The submittal register and the progress schedules shall be coordinated.

The Contractor shall maintain a submittal register for the project.

1.5.6 SCHEDULING

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time (a minimum of 30 calendar days exclusive of mailing time) shall be allowed on the register for review and approval. No delays, damages or time extensions will be allowed for time lost in late submittals.

1.5.7 TRANSMITTAL FORM (ENG FORM 4025)

The sample transmittal form (ENG Form 4025) attached to this section shall be used for submitting both Government approved and information only submittals in accordance with the instructions on the reverse of the form. These forms will be furnished to the Contractor. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care will be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item.

1.5.8 SUBMITTAL PROCEDURE

Six (6) copies of submittals shall be made as follows:

1.5.8.1 Procedures

This paragraph is in addition to the requirements set forth in Contract Clause entitled "Specifications and Drawings for Construction" (ER 415-1-10). In the signature block provided on ENG Form 4025 the Contractor certifies that each item has been reviewed in detail and is correct and is in strict conformance with the contract drawings and specifications unless noted otherwise. The accuracy and completeness of submittals is the responsibility of the Contractor. Any costs due to resubmittal of documents caused by inaccuracy, lack of coordination, and/or checking shall be the responsibility of the Contractor. This shall include the handling and review time on the part of the Government. Each variation from the contract specifications and drawings shall be noted on the form; and, attached to the form, the Contractor shall set forth, in writing, the reason for and description of such variations. If these requirements are not met, the submittal may be returned for corrective action.

1.5.8.2 Deviations

For submittals which include proposed deviations requested by the Contractor, the column "variations" of ENG Form 4025 shall be checked. The Contractor shall set forth in writing the reason for any deviations and annotate such deviations on the submittal. The government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

1.5.9 GOVERNMENT APPROVED SUBMITTALS

Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being stamped and dated. Four (4) copies of the submittal will be retained by the Contracting Officer and two (2) copies of the submittal will be returned to the Contractor.

1.5.10 INFORMATION ONLY SUBMITTALS

Normally submittals for information only will be returned. Approval of the Contracting Officer is not required on information only submittals. These submittals will be used for information purposes. The government reserves the right to require the Contractor to resubmit any item found not to comply with the contract.

1.5.11 STAMPS

Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements shall be similar to the following:

(Firm Name)

_____ Approved

_____ Approved with corrections as noted on submittal data
and/or attached sheet(s).

SIGNATURE: _____

TITLE: _____

DATE: _____

1.6 ENVIRONMENTAL PROTECTION

1.6.1 APPLICABLE REGULATIONS

The Contractor and his subcontractors in the performance of this contract, shall comply with all applicable Federal, State, and local laws and regulations concerning environmental pollution control and abatement in effect on the date of this solicitation, as well as the specific requirements stated elsewhere in the contract specifications.

1.6.2 NOTIFICATION

The Contracting Officer will notify the Contractor of any non-compliance with the foregoing provisions and the action to be taken. The Contractor shall, after receipt of such notice, immediately take corrective action. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of time lost due to any such stop order shall be made the subject of a claim for extension of time or for excess costs or damages by the Contractor unless it is later determined that the Contractor was in compliance.

1.6.3 PROTECTION OF WATER RESOURCES

The Contractor shall not pollute streams, lakes or reservoirs with fuels, oils, bitumens, calcium chloride, acid construction wastes or other harmful materials. All work under this contract shall be performed in such a manner that objectionable conditions will not be created in streams through or adjacent to the project areas.

1.6.4 DUST CONTROL

The Contractor shall maintain all work area free from dust which would contribute to air pollution. Approved temporary methods of stabilization consisting of sprinkling, chemical treatment, light bituminous treatment or similar methods will be permitted to control dust. Sprinkling, where used, must be repeated at such intervals as to keep all parts of the disturbed area at least damp at all times. Dust control shall be performed as the work proceeds and whenever a dust nuisance or hazard occurs.

1.7 AS-BUILD DRAWINGS

See Section 01780 for As-Built Drawings.

PART 2 PRODUCT -- NOT APPLICABLE

PART 3 EXECUTION -- NOT APPLICABLE

ATTACHMENTS

**Form 1153
Checklist
Form 4921-R
Form 4025
Signature-Blks**

-- End of Section --

SUBMITTAL REGISTER																							CONTRACT NO.		
PROJECT TITLE & LOCATION Restoration of RFK Gravesite Arlington National Cemetery, Arlington, Virginia														CONTRACTOR								SPEC. SECTION 01010			
				TYPE OF SUBMITTAL (COPIES)										CLASS			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOV'T ACTION		
TRANSMITTAL NO. a.	ITEM NO. b.	SPEC. PARA. NO. c.	DESCRIPTION OF ITEM SUBMITTED d.	DATA e.	DRAWINGS f.	INSTRUCTIONS g.	SCHEDULES h.	STATEMENTS i.	REPORTS j.	CERTIFICATES k.	SAMPLES l.	RECORDS m.	INFO ONLY n.	GOV' T APPROVAL o.	REVIEWER p.	SUBMIT q.	APPROVAL NEEDED BY r.	MATERIAL NEEDED BY s.	CODE t.	DATE u.	SUBMIT TO GOV' T v.	CODE w.	DATE x.	REMARKS y.	
	1	1.4.3	CQC Plan			X								X			AR								
	2	1.5	Title Evidence									X	X												
	3	1.5	Invoice Copies									X	X												
	4	1.5	Payment									X	X												
	5	1.5	Checklist									X		X			AR								
	6	1.5	OSHA Log									X	X												
	7	1.5	CQC Program			X								X			AR								
	8	1.5	Photographs									X	X												
	9	1.5	Change Notice									X	X												
	10	1.5	Progress Schedule									X		X			AR								
	11	1.5	Modified Chart									X		X			AR								

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SUBMITTAL REGISTER																					CONTRACT NO.			
PROJECT TITLE & LOCATION Restoration of RFK Gravesite Arlington National Cemetery, Arlington, Virginia														CONTRACTOR						SPEC. SECTION 01200				
				TYPE OF SUBMITTAL (COPIES)								CLASS			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOV'T ACTION			
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.
TRANSMITTAL NO.	ITEM NO.	SPEC. PARA. NO.	DESCRIPTION OF ITEM SUBMITTED	DATA	DRAWINGS	INSTRUCTIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	INFO ONLY	GOV' T APPROVAL	REVIEWER	SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOV' T	CODE	DATE	REMARKS
	1	1.6	Sample Tags	X							X		X											

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SUBMITTAL REGISTER																					CONTRACT NO.				
PROJECT TITLE & LOCATION Restoration of RFK Gravesite Arlington National Cemetery, Arlington, Virginia														CONTRACTOR						SPEC. SECTION 01780					
				TYPE OF SUBMITTAL (COPIES)										CLASS			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOV'T ACTION		
TRANSMITTAL NO. a.	ITEM NO. b.	SPEC. PARA. NO. c.	DESCRIPTION OF ITEM SUBMITTED d.	DATA e.	DRAWINGS f.	INSTRUCTIONS g.	SCHEDULES h.	STATEMENTS i.	REPORTS j.	CERTIFICATES k.	SAMPLES l.	RECORDS m.	INFO ONLY n.	GOV' T APPROVAL o.	REVIEWER p.	SUBMIT q.	APPROVAL NEEDED BY r.	MATERIAL NEEDED BY s.	CODE t.	DATE u.	SUBMIT TO GOV' T v.	CODE w.	DATE x.	REMARKS y.	
	1	1.1	As-Built Dwgs		X									X			AR								
	2	1.1	As-Built									X	X												
	3	1.1	Warranty Plan			X								X			AR								
	4	1.1	Warranty Tags									X		X			AR								
	5	1.1	Final Cleanup						X					X											

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SUBMITTAL REGISTER																				CONTRACT NO.					
PROJECT TITLE & LOCATION Restoration of RFK Gravesite Arlington National Cemetery, Arlington, Virginia															CONTRACTOR					SPEC. SECTION SK-C5 & C6					
				TYPE OF SUBMITTAL (COPIES)								CLASS			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOV'T ACTION				
TRANSMITTAL NO. a.	ITEM NO. b.	SPEC. PARA. NO. c.	DESCRIPTION OF ITEM SUBMITTED d.	DATA e.	DRAWINGS f.	INSTRUCTIONS g.	SCHEDULES h.	STATEMENTS i.	REPORTS j.	CERTIFICATES k.	SAMPLES l.	RECORDS m.	INFO ONLY n.	GOV' T APPROVAL o.	REVIEWER p.	SUBMIT q.	APPROVAL NEEDED BY r.	MATERIAL NEEDED BY s.	CODE t.	DATE u.	SUBMIT TO GOV' T v.	CODE w.	DATE x.	REMARKS y.	
	1		Sand	X										X			AE								
	2		Edging	X							X			X			AE								
	3		Backfill	X										X			AE								
	4		Mulch	X										X			AE								
	5		Granite Paver	X							X			X			AE								

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SUBMITTAL REGISTER																				CONTRACT NO.					
PROJECT TITLE & LOCATION Restoration of RFK Gravesite Arlington National Cemetery, Arlington, Virginia															CONTRACTOR					SPEC. SECTION SK-C7					
				TYPE OF SUBMITTAL (COPIES)								CLASS			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOV'T ACTION				
TRANSMITTAL NO. a.	ITEM NO. b.	SPEC. PARA. NO. c.	DESCRIPTION OF ITEM SUBMITTED d.	DATA e.	DRAWINGS f.	INSTRUCTIONS g.	SCHEDULES h.	STATEMENTS i.	REPORTS j.	CERTIFICATES k.	SAMPLES l.	RECORDS m.	INFO ONLY n.	GOV' T APPROVAL o.	REVIEWER p.	SUBMIT q.	APPROVAL NEEDED BY r.	MATERIAL NEEDED BY s.	CODE t.	DATE u.	SUBMIT TO GOV' T v.	CODE w.	DATE x.	REMARKS y.	
	1		Granite Curb	X							X			X			AE								
	2		Granite Pavers	X							X			X			AE								
	3		Granite Cleaner	X										X			AE								
	4		Layout Plan		X									X			AE								

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SUBMITTAL REGISTER																				CONTRACT NO.					
PROJECT TITLE & LOCATION Restoration of RFK Gravesite Arlington National Cemetery, Arlington, Virginia															CONTRACTOR					SPEC. SECTION SK-C8					
				TYPE OF SUBMITTAL (COPIES)								CLASS			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOV'T ACTION				
TRANSMITTAL NO. a.	ITEM NO. b.	SPEC. PARA. NO. c.	DESCRIPTION OF ITEM SUBMITTED d.	DATA e.	DRAWINGS f.	INSTRUCTIONS g.	SCHEDULES h.	STATEMENTS i.	REPORTS j.	CERTIFICATES k.	SAMPLES l.	RECORDS m.	INFO ONLY n.	GOV' T APPROVAL o.	REVIEWER p.	SUBMIT q.	APPROVAL NEEDED BY r.	MATERIAL NEEDED BY s.	CODE t.	DATE u.	SUBMIT TO GOV' T v.	CODE w.	DATE x.	REMARKS y.	
	1		Mortar	X										X			AE								
	2		Caulking	X										X			AE								
	3		Replacement Plan			X								X			AE								

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SUBMITTAL REGISTER																				CONTRACT NO.					
PROJECT TITLE & LOCATION Restoration of RFK Gravesite Arlington National Cemetery, Arlington, Virginia															CONTRACTOR					SPEC. SECTION SK-C9					
				TYPE OF SUBMITTAL (COPIES)										CLASS			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOV'T ACTION		
TRANSMITTAL NO. a.	ITEM NO. b.	SPEC. PARA. NO. c.	DESCRIPTION OF ITEM SUBMITTED d.	DATA e.	DRAWINGS f.	INSTRUCTIONS g.	SCHEDULES h.	STATEMENTS i.	REPORTS j.	CERTIFICATES k.	SAMPLES l.	RECORDS m.	INFO ONLY n.	GOV' T APPROVAL o.	REVIEWER p.	SUBMIT q.	APPROVAL NEEDED BY r.	MATERIAL NEEDED BY s.	CODE t.	DATE u.	SUBMIT TO GOV' T v.	CODE w.	DATE x.	REMARKS y.	
	1		Bronze Stock Samples	X							X			X			AE								
	2		Barrier Shop Drawing		X									X			AE								
	3		Filler Sample	X							X			X			AE								

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SUBMITTAL REGISTER																				CONTRACT NO.				
PROJECT TITLE & LOCATION										CONTRACTOR										SPEC. SECTION				
Restoration of RFK Gravesite Arlington National Cemetery, Arlington, Virginia																				SK-C10				
				TYPE OF SUBMITTAL (COPIES)								CLASS			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOV'T ACTION			
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.
TRANSMITTAL NO.	ITEM NO.	SPEC. PARA. NO.	DESCRIPTION OF ITEM SUBMITTED	DATA	DRAWINGS	INSTRUCTIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	INFO ONLY	GOV' T APPROVAL	REVIEWER	SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	DATE	SUBMIT TO GOV' T	CODE	DATE	REMARKS
	1		Seepage Sys Shop Drawing	X	X									X			AE							

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SUBMITTAL REGISTER																				CONTRACT NO.					
PROJECT TITLE & LOCATION Restoration of RFK Gravesite Arlington National Cemetery, Arlington, Virginia															CONTRACTOR					SPEC. SECTION SK-M4					
				TYPE OF SUBMITTAL (COPIES)								CLASS			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOV'T ACTION				
TRANSMITTAL NO. a.	ITEM NO. b.	SPEC. PARA. NO. c.	DESCRIPTION OF ITEM SUBMITTED d.	DATA e.	DRAWINGS f.	INSTRUCTIONS g.	SCHEDULES h.	STATEMENTS i.	REPORTS j.	CERTIFICATES k.	SAMPLES l.	RECORDS m.	INFO ONLY n.	GOV' T APPROVAL o.	REVIEWER p.	SUBMIT q.	APPROVAL NEEDED BY r.	MATERIAL NEEDED BY s.	CODE t.	DATE u.	SUBMIT TO GOV' T v.	CODE w.	DATE x.	REMARKS y.	
	1		Pool Pumps	X										X			AE								
	2		Filter Pumps	X										X			AE								
	3		Filter	X										X			AE								
	4		Water Heater	X										X			AE								
	5		Cabinet Heater	X										X			AE								
	6		Chlorinator	X										X			AE								
	7		Exhaust Fan	X										X			AE								
	8		Backflow Preventor	X										X			AE								
	9		Piping Layout Plan		X									X			AE								

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SUBMITTAL REGISTER																				CONTRACT NO.					
PROJECT TITLE & LOCATION Restoration of RFK Gravesite Arlington National Cemetery, Arlington, Virginia															CONTRACTOR					SPEC. SECTION SK-M5					
				TYPE OF SUBMITTAL (COPIES)										CLASS		CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOV'T ACTION			
TRANSMITTAL NO. a.	ITEM NO. b.	SPEC. PARA. NO. c.	DESCRIPTION OF ITEM SUBMITTED d.	DATA e.	DRAWINGS f.	INSTRUCTIONS g.	SCHEDULES h.	STATEMENTS i.	REPORTS j.	CERTIFICATES k.	SAMPLES l.	RECORDS m.	INFO ONLY n.	GOV' T APPROVAL o.	REVIEWER p.	SUBMIT q.	APPROVAL NEEDED BY r.	MATERIAL NEEDED BY s.	CODE t.	DATE u.	SUBMIT TO GOV' T v.	CODE w.	DATE x.	REMARKS y.	
	1		Concrete Tank Spec & Calcs	X										X			AE								
	2		Concrete Tank Drawings		X									X			AE								
	3		Tank Openings & Penetrations		X									X			AE								
	4		Hydrostatic Seal	X										X			AE								
	5		Control Device Placement	X	X									X			AE								
	6		Tank Placement Plan			X								X			AE								
	7		Leak Test Plan			X								X			AE								

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SUBMITTAL REGISTER																				CONTRACT NO.					
PROJECT TITLE & LOCATION Restoration of RFK Gravesite Arlington National Cemetery, Arlington, Virginia															CONTRACTOR					SPEC. SECTION SK-M6 & M7					
				TYPE OF SUBMITTAL (COPIES)										CLASS			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOV'T ACTION		
TRANSMITTAL NO. a.	ITEM NO. b.	SPEC. PARA. NO. c.	DESCRIPTION OF ITEM SUBMITTED d.	DATA e.	DRAWINGS f.	INSTRUCTIONS g.	SCHEDULES h.	STATEMENTS i.	REPORTS j.	CERTIFICATES k.	SAMPLES l.	RECORDS m.	INFO ONLY n.	GOV' T APPROVAL o.	REVIEWER p.	SUBMIT q.	APPROVAL NEEDED BY r.	MATERIAL NEEDED BY s.	CODE t.	DATE u.	SUBMIT TO GOV' T v.	CODE w.	DATE x.	REMARKS y.	
	1		PVC Pipe & Fittings	X										X			AE								
	2		Valves	X										X			AE								
	3		Mechanical Couplings	X										X			AE								
	4		Leak Test Plan			X								X			AE								
	5		System Profile		X									X			AE								

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SUBMITTAL REGISTER																				CONTRACT NO.					
PROJECT TITLE & LOCATION Restoration of RFK Gravesite Arlington National Cemetery, Arlington, Virginia															CONTRACTOR					SPEC. SECTION SK-M8 & M9					
				TYPE OF SUBMITTAL (COPIES)										CLASS			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOV'T ACTION		
TRANSMITTAL NO. a.	ITEM NO. b.	SPEC. PARA. NO. c.	DESCRIPTION OF ITEM SUBMITTED d.	DATA e.	DRAWINGS f.	INSTRUCTIONS g.	SCHEDULES h.	STATEMENTS i.	REPORTS j.	CERTIFICATES k.	SAMPLES l.	RECORDS m.	INFO ONLY n.	GOV' T APPROVAL o.	REVIEWER p.	SUBMIT q.	APPROVAL NEEDED BY r.	MATERIAL NEEDED BY s.	CODE t.	DATE u.	SUBMIT TO GOV' T v.	CODE w.	DATE x.	REMARKS y.	
	1		Control Schematics	X	X									X			AE								
	2		Commissioning Plans			X								X			AE								

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SUBMITTAL REGISTER																				CONTRACT NO.					
PROJECT TITLE & LOCATION Restoration of RFK Gravesite Arlington National Cemetery, Arlington, Virginia															CONTRACTOR					SPEC. SECTION SK-E1 to E6					
				TYPE OF SUBMITTAL (COPIES)								CLASS			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOV'T ACTION				
TRANSMITTAL NO. a.	ITEM NO. b.	SPEC. PARA. NO. c.	DESCRIPTION OF ITEM SUBMITTED d.	DATA e.	DRAWINGS f.	INSTRUCTIONS g.	SCHEDULES h.	STATEMENTS i.	REPORTS j.	CERTIFICATES k.	SAMPLES l.	RECORDS m.	INFO ONLY n.	GOV' T APPROVAL o.	REVIEWER p.	SUBMIT q.	APPROVAL NEEDED BY r.	MATERIAL NEEDED BY s.	CODE t.	DATE u.	SUBMIT TO GOV' T v.	CODE w.	DATE x.	REMARKS y.	
	1		Panel	X										X			AE								
	2		Breakers	X										X			AE								
	3		Starters	X										X			AE								
	4		Conduit	X										X			AE								
	5		Wire	X										X			AE								
	6		Handhole	X										X			AE								

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RISK ASSESSMENT FOR
EXCAVATION AND OTHER WORK IN THE VICINITY OF UTILITIES

PROJECT NAME: _____
CONTRACT NUMBER: _____
PROJECT INSTALLATION AND LOCATION: _____
PROPOSED EXCAVATION START DATE: _____

1. ☐ ESTABLISH EXCAVATION DETAILS AND DRAWINGS (check when completed)
2. ☐ PROPOSED EXCAVATION AREA MARKED ("white lining") (check when completed)
3. ☐ CONTACT APPROPRIATE ONE-CALL SERVICE FOR PUBLIC UTILITIES:
MD: Miss Utility 1-800-257-7777 N Y : New York City - Long Island One Call Center 1-800-272-4480
N. VA: Miss Utility 1-800-552-7777 PA: Pennsylvania One-Call System Incorporated 1-800-242-1776
VA: Miss Utility of VA 1-800-552-7001 DC: Miss Utility 1-800-257-7777
ONE-CALL NATIONAL REFERRAL CENTER: 1-888-258-0808

☐ CONTACT INSTALLATION/OWNERS OF ALL PRIVATELY OWNED UTILITIES (NON ONE-CALL MEMBERS)
4. ☐ DATE UTILITIES MARKED AND METHOD OF MARKING
ONE-CALL LOCATORS _____
OTHER LOCATORS _____
5. ☐ CONTACT APPROPRIATE DPW REPRESENTATIVES AND COMPLY WITH INSTALLATION PERMIT REQUIREMENTS: _____
6. ☐ UTILITIES IDENTIFIED ON-SITE:
☐ NONE ☐ ELECTRIC ☐ GAS ☐ WATER ☐ TELEPHONE ☐ CATV ☐ SEWER ☐ OTHER _____
7. ☐ LEVEL OF RISK: (Based upon personnel safety and consequences of utility outages.)
☐ SEVERE: Excavation required within the immediate vicinity (<2-ft) of a MARKED utility.
☐ MODERATE: Excav. required outside the immediate vicinity (> 2-ft) of MARKED utility.
☐ MINIMAL: Excavation required in an area with NO utilities.
8. ☐ EXISTING FACILITIES/UTILITIES IN VICINITY:
☐ NON-CRITICAL ☐ MISSION CRITICAL ☐ HIGH-PROFILE ☐ CEREMONIAL
☐ OTHER _____
☐ CONSEQUENCES IF EXISTING UTILITIES ARE DAMAGED/DISRUPTED _____
9. ☐ ENGINEERING CONTROLS REQUIRED:
☐ NONE ☐ HAND EXCAVATE TO LOCATE UTILITY ☐ EXCAVATE WITH DUE CARE
☐ OTHER _____
10. ☐ ADMINISTRATIVE CONTROLS REQUIRED:
☐ Notification of Contracting Officer's Representative, NOTIFIED on: _____
☐ Notification of Installation/DPW Representative, NOTIFIED on: _____
11. ☐ EMERGENCY NOTIFICATION AT INSTALLATION: POC & PHONE NUMBER _____

THE INFORMATION NOTED ABOVE IS ACCURATE AND THE WORK IS READY TO PROCEED
SIGNED and DATE _____ CQC MANAGER

12. ☐ ON-SITE GOVERNMENT REP. RECOMMENDATION FOR APPROVAL TO EXCAVATE:
☐ YES ☐ NO SIGNATURE AND DATE: _____
Comments: _____
13. ☐ AREA ENGINEER APPROVAL TO EXCAVATE:
☐ APPROVED ☐ DENIED SIGNATURE AND DATE: _____
Comments: _____
14. ☐ CHIEF, _____ DIVISION APPROVAL TO EXCAVATE:
☐ APPROVED ☐ DENIED SIGNATURE AND DATE: _____
Comments: _____

09/2000

Contractor's Name:	_____
Address:	_____
Phone Number:	_____

CONSTRUCTION QUALITY CONTROL REPORT

PROJECT NAME: _____
LOCATION: _____ DATE: _____
CONTRACT NUMBER: _____ REPORT NO.: _____

SUPERINTENDENT: _____			
TYPE OF WORKERS	NUMBER	TYPES OF CONSTRUCTION EQUIPMENT ON SITE	NUMBER
SUBCONTRACTORS			
COMPANY	RESPONSIBILITY	FOREMAN	NO. OF WORKERS
TOTALS			
NO. OF WORKERS TODAY	MANHOURS TODAY	MANHOURS FOR THIS PERIOD	
CONTRACT MATERIALS AND EQUIPMENT DELIVERED TO SITE:			
WEATHER: _____ SITE CONDITIONS: _____			
DID A DELAY OR WORK STOPPAGE OCCUR TODAY? _____ IF YES, EXPLAIN.			
HAS ANYTHING DEVELOPED IN THE WORK WHICH MAY LEAD TO A CHANGE OR FINDING OF FACT? _____ IF YES, EXPLAIN.			

DESCRIPTION OF ALL WORK PERFORMED TODAY
(LIST BY DEFINABLE FEATURES OF WORK)

PREPARATORY INSPECTION:

LIST ALL INSPECTIONS BY SUBJECT AND SPECIFICATION LOCATION.
ATTACH MINUTES OF MEETING AND LIST OF ALL ATTENDEES.

HAVE ALL REQUIRED SUBMITTALS AND SAMPLES OF CONSTRUCTION BEEN
APPROVED.

DO THE MATERIALS AND EQUIPMENT TO BE USED CONFORM TO THE SUBMITTALS?

HAS ALL PRELIMINARY WORK BEEN INSPECTED, TESTED, AND COMPLETED?

TEST REQUIRED AND INSPECTION TECHNIQUES TO BE EXECUTED TO PROVE
CONTRACT COMPLIANCE (INCLUDE BOTH EXPECTED AND ACTUAL RESULTS)

HAS A PHASE HAZARD ANALYSIS BEEN PERFORMED?

COMMENTS AND DEFICIENCIES NOTED AND CORRECTIVE ACTIONS TAKEN:

ALL INSTRUCTIONS RECEIVED FROM QA PERSONNEL AND ACTIONS TAKEN:

JOB SAFETY (INCLUDE MEETINGS HELD AND DEFICIENCIES NOTED WITH
CORRECTIVE ACTIONS):

INITIAL INSPECTION:

LIST ALL INSPECTIONS BY SUBJECT AND SPECIFICATION LOCATION.
COMMENTS AND/OR DEFICIENCIES NOTED AND CORRECTIVE ACTION TAKEN:

FOLLOW-UP INSPECTION:

LIST ALL INSPECTIONS BY SUBJECT AND SPECIFICATION LOCATION.
COMMENTS AND/OR DEFICIENCIES NOTED AND CORRECTIVE ACTION TAKEN.

SIGNATURE: _____
QUALITY CONTROL REPRESENTATIVE/MANAGER

THE ABOVE REPORT IS COMPLETE AND CORRECT. ALL MATERIALS AND
EQUIPMENT USED AND ALL WORK PERFORMED DURING THIS REPORTING PERIOD
ARE IN COMPLIANCE WITH THE CONTRACT SPECIFICATIONS, AND SUBMITTALS,
EXCEPT AS NOTED ABOVE.

SIGNATURE: _____
CONTRACTOR'S APPROVED AUTHORIZED REPRESENTATIVE

SECTION 01090

SOURCES FOR REFERENCE PUBLICATIONS

06/00

PART 1 GENERAL

1.1 REFERENCES

Various publications are referenced in other sections of the specifications to establish requirements for the work. These references are identified in each section by document number, date and title. The document number used in the citation is the number assigned by the sponsoring organization, e.g. ASTM B 564 Nickel Alloy Forgings. However, when the sponsoring organization has not assigned a number to a document, an identifying number has been assigned for reference purposes.

1.2 ORDERING INFORMATION

The addresses of the organizations whose publications are referenced in other sections of these specifications are listed below, and if the source of the publications is different from the address of the sponsoring organization, that information is also provided. Documents listed in the specifications with numbers which were not assigned by the sponsoring organization should be ordered from the source by title rather than by number.

AIR CONDITIONING AND REFRIGERATION INSTITUTE (ARI)

4301 North Fairfax Dr., Suite 425
ATTN: Pubs Dept.
Arlington, VA 22203
Ph: 703-524-8800
Fax: 703-528-3816
E-mail: ari@ari.org
Internet: www.ari.org
AOK 6/00

AIR DIFFUSION COUNCIL (ADC)

104 So. Michigan Ave., No. 1500
Chicago, IL 60603
Ph: 312-201-0101
Fax: 312-201-0214
Internet: www.flexibleduct.org
AOK 6/00

AIR MOVEMENT AND CONTROL ASSOCIATION (AMCA)

30 W. University Dr.
Arlington Heights, IL 60004-1893
Ph: 847-394-0150
Fax: 847-253-0088
Internet: www.amca.org
AOK 6/00

ALUMINUM ASSOCIATION (AA)

900 19th Street N.W.
Washington, DC 20006
Ph: 202-862-5100
Fax: 202-862-5164
Internet: www.aluminum.org
AOK 6/00

AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION (AAMA)

1827 Walden Ofc. Sq.
Suite 104
Schaumburg, IL 60173-4268
Ph: 847-303-5664
Fax: 847-303-5774
Internet: www.aamanet.org
AOK 6/00

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

One East Wacker Dr., Suite 3100
Chicago, IL 60601-2001
Ph: 312-670-2400
Publications: 800-644-2400
Fax: 312-670-5403
Internet: www.aisc.org
AOK 6/00

AMERICAN INSTITUTE OF TIMBER CONSTRUCTION (AITC)

7012 So. Revere Parkway, Suite 140
Englewood, CO 80112
Ph: 303-792-9559
Fax: 303-792-0669
Internet: www.aitc-glulam.org
AOK 6/00

AMERICAN IRON AND STEEL INSTITUTE (AISI)

1101 17th St., NW Suite 1300
Washington, DC 20036
Ph: 202-452-7100
AOK 6/00

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

11 West 42nd St
New York, NY 10036

Ph: 212-642-4900

Fax: 212-398-0023

Internet: www.ansi.org/

Note: Documents beginning with the letter "S" can be ordered from:

Acoustical Society of America

P. O. Box 1020

Sweickley, PA 15143-9998

Ph: 412-741-1979

Fax: 412-741-0609

Internet: asa.aip.org

AOK 6/00

AMERICAN NURSERY AND LANDSCAPE ASSOCIATION (ANLA)

1250 I St., NW, Suite 500

Washington, DC 20005-3922

Ph: 202-789-2900

FAX: 202-789-1893

AOK 6/00

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

100 Barr Harbor Drive

West Conshohocken, PA 19428-2959

Ph: 610-832-9585

Fax: 610-832-9555

Internet: www.astm.org

AOK 6/00

NOTE: The annual ASTM Book of Standards (66 Vol) is available for \$3500.00. Prices of individual standards vary.

AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE)

1801 Alexander Bell Drive

Reston, VA 20190-4400

Ph: 703-295-6300 - 800-548-2723

Fax: 703-295-6222

Internet: www.asce.org

e-mail: marketing@asce.org

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AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS (ASHRAE)

1791 Tullie Cir., NE

Atlanta, GA 30329

Ph: 800-527-4723 or 404-636-8400

Fax: 404-321-5478
Internet: <http://www.ashrae.org>
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AMERICAN WATER WORKS ASSOCIATION(AWWA)

6666 West Quincy
Denver, CO 80235
Ph: 800-926-7337 - 303-794-7711
Fax: 303-347-0804
Internet: www.awwa.org
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AMERICAN WELDING SOCIETY (AWS)

550 N.W. LeJeune Road
Miami, FL 33126
Ph: 800-443-9353 - 305-443-9353
Fax: 305-443-7559
Internet: <http://www.amweld.org>
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ASME INTERNATIONAL (ASME)

Three Park Avenue
New York, NY 10016-5990
Ph: 212-591-7722
Fax: 212-591-7674
Internet: www.asme.org

ASSOCIATED AIR BALANCE COUNCIL (AABC)

1518 K St., NW, Suite 503
Washington, DC 20005
Ph: 202-737-0202
Fax: 202-638-4833

BUILDING OFFICIALS & CODE ADMINISTRATORS INTERNATIONAL (BOCA)

4051 W. Flossmoor Rd.
Country Club Hills, IL 60478
Ph: 708-799-2300
Fax: 708-799-4981
E-mail: boca@aecnet.com

CAST IRON SOIL PIPE INSTITUTE (CISPI)

5959 Shallowford Rd., Suite 419
Chattanooga, TN 37421
Ph: 423-892-0137
Fax: 423-892-0817

CODE OF FEDERAL REGULATIONS (CFR)

Order from:
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Washington, DC 20402
Ph: 202-512-1800
Fax: 202-275-7703
Internet: <http://www.pls.com:8001/his/cfr.html>

CONCRETE REINFORCING STEEL INSTITUTE (CRSI)

933 No. Plum Grove Rd.
Schaumburg, IL 60173-4758
Ph: 847-517-1200
Fax: 847-517-1206
Internet: <http://www.crsi.org>

CORPS OF ENGINEERS (COE)

Order from:
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ATTN: Technical Report Distribution Section, Services
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Vicksburg, MS 39180-6199
Ph: 601-634-2571
Fax: 601-634-2506
NOTE: COE Handbook for Concrete and Cement (Documents w/prefix CRD-C)
(1949-present; 2 Vol) free to Government offices; \$10.00 plus \$8.00 per yr for 4 qtrly
supplements to others). Individual documents, single copies free. Order from
address above.

FACTORY MUTUAL ENGINEERING AND RESEARCH (FM)

1151 Boston-Providence Turnpike
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Norwood, MA 02062-9102
Ph: 617-255-4681
Fax: 617-255-4359
Internet: <http://www.factorymutual.com>

FEDERAL SPECIFICATIONS (FS)

Order from:
General Services Administration
Federal Supply Service Bureau
470 L'Enfant Plaza, S.W.
Washington, DC 20407
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Fax: 202-619-8978
Internet: <http://pub.fss.gsa.gov/>

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)

445 Hoes Ln, P. O. Box 1331
Piscataway, NJ 08855-1331
Ph: 732-981-0060 OR 800-701-4333
Fax: 732-981-9667
Internet: <http://www.standards.ieee.org>
E-mail: customer.service@ieee.org

**MANUFACTURERS STANDARDIZATION SOCIETY OF THE VALVE AND FITTINGS
INDUSTRY (MSS)**

127 Park St., NE
Vienna, VA 22180-4602
Ph: 703-281-6613
Fax: 703-281-6671
Internet: [//cssinfo.com/info/mss/html](http://cssinfo.com/info/mss/html)

MARBLE INSTITUTE OF AMERICA (MIA)

33505 State St.
Farmington, MI 48335
Ph: 810-476-5558
Fax: 810-476-1630

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)

1300 N. 17th St., Suite 1847
Rosslyn, VA 22209
Ph: 703-841-3200
Fax: 703-841-3300
Internet: <http://www.nema.org/>

PIPE FABRICATION INSTITUTE (PFI)

3211 Jermantown Rd, Ste. 100, Fairfax, VA 22030
Ph: 514-634-3434
Fax: 514-634-9736

PLASTIC PIPE AND FITTINGS ASSOCIATION (PPFA)

800 Roosevelt Rd., Bldg C, Suite 20
Glen Ellyn, IL 60137
Ph: 630-858-6540
Fax: 630-790-3095

PLASTICS PIPE INSTITUTE (PPI)

1801 L St. NW, Suite 600K
Washington, D. C. 20006-1301
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Fax: 202-293-0048
Internet: <http://www.plasticpipe.org>
Order Publications from:
SPI
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Waldorf, MD 20604
Ph: 202-974-5332
Fax: 800-541-0736 or 202-296-7359

PLUMBING AND DRAINAGE INSTITUTE (PDI)

45 Bristol Dr., Suite 101.
South Easton, MA 02375
Ph: 508-230-3516
Fax: 508-230-3529
E-Mail: pdhw@tiac.net

PRECAST/PRESTRESSED CONCRETE INSTITUTE (PCI)

175 West Jackson Blvd., Suite 1859
Chicago, IL 60604
Ph: 312-786-0300
Fax: 312-786-0353
Internet: www.pci.org
e-mail: info@pci.org

**SHEET METAL & AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION
(SMACNA)**

4201 Lafayette Center Dr.,
Chantilly, VA 20151-1209
Ph: 703-803-2980
Fax: 703-803-3732
Internet: <http://www.smacna.org>

STEEL TANK INSTITUTE (STI)

570 Oakwood Rd.
Lake Zurich, IL 60047
Ph: 847-438-8265
Fax: 847-438-8766
Internet: www.steeltank.com
e-mail: technic@interaccess.com

UNDERWRITERS LABORATORIES (UL)

333 Pfingsten Rd.
Northbrook, IL 60062-2096
Ph: 847-272-8800
Fax: 847-272-8129
Internet: <http://www.ul.com/>

Note: First price is for the standard only. Second price is for the standard including

the Revision Subscription Service.

WATER QUALITY ASSOCIATION (WQA)

**4151 Naperville Rd.
Lisle, IL 60532
Ph: 630-505-0160
Fax: 630-505-9637**

-- End of Section --

SECTION 01200

WARRANTY REQUIREMENT 06/99

PART 1 GENERAL

1.1 WARRANTY OF CONSTRUCTION

The Contractor shall warranty all materials and workmanship in accordance with Contract Clause (FAR 52.246-21), "WARRANTY OF CONSTRUCTION"

1.2 MANUFACTURER'S WARRANTY:

The Contractor shall provide manufacturer's warranties, when available, on all equipment for one year starting from the day of facility acceptance by the Government. Any warranty offered by the manufacturer for periods greater than one year or required by other sections of the specifications shall also be provided.

1.3 WARRANTY PAYMENT

Warranty work is a subsidiary portion of the contract work, and has a value to the Government of \$5,000. The Contractor will assign a value of that amount in the breakdown for progress payments mentioned in the Contract Clause (FAR 52.232-5) "Payments Under Fixed-Price Construction". If the Contractor fails to respond to warranty items as provided in paragraph CONTRACTOR'S RESPONSE TO WARRANTY SERVICE REQUIREMENTS below, the Government may elect to acquire warranty repairs through other sources and, if so, shall backcharge the Contractor for the cost of such repairs. Such backcharges shall be accomplished under the Contract Clause (FAR 52.243-4) "CHANGES" of the contract through a credit modification(s).

1.4 PERFORMANCE BOND:

The Contractor's Performance Bond will remain effective throughout the construction warranty period and warranty extensions.

1.4.1 Failure to Commence

In the event the Contractor or his designated representative(s) fail to commence and diligently pursue any work required under this clause, and in a manner pursuant to the requirements thereof, the Contracting Officer shall have the right to demand that said work be performed under the Performance Bond by making written notice on the surety. If the surety fails or refuses to perform the obligation it assumed under the Performance Bond, the Contracting Officer shall have the work performed by others, and after completion of the work, may demand reimbursement of any or all expenses incurred by the Government while performing the work, including, but not limited to administrative expenses.

1.5 PRE-WARRANTY CONFERENCE:

Prior to contract completion and at a time designated by the Contracting Officer, the Contractor shall meet with the Contracting Officer to develop a mutual understanding with respect to the requirements of this specification. Communication procedures for Contractor notification of warranty defects, priorities with respect to the type of defect, reasonable time required for Contractor response, and other details deemed necessary by the Contracting Officer for the execution of the construction warranty shall be reviewed at this meeting. The Contractor shall provide names, addresses, and telephone numbers of all subcontractors, equipment suppliers, or manufacturers with specific designation of their area of responsibilities if they are to be contacted directly on warranty corrections. This point of contact will be located within the local service area of the warranted construction, will be continuously available, and will be responsive to Government inquiry on warranty work action and status. Minutes of the meeting will be prepared by the Government and signed by both, the Contractor and the Contracting Officer. The minutes shall become part of the contract file.

1.6 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted:

SD-14 Samples

Sample Tags; FIO.

To identify the warranty for all Contractor and Government furnished equipment which the Contractor installs.

1.7 ADDITIONAL REQUIREMENTS

1.7.1 Pipe Penetration Survey

The Contractor shall during the ninth (9) month of the warranty period conduct a survey of all pipe penetrations to insure water is not leaking into the pump room or out of the underground storage tank. Contractor shall be required to replace all damaged materials and to locate and repair sources of moisture penetration.

1.7.2 Equipment Warranty Identification Tags:

The Contractor shall provide warranty identification tags on all Contractor and Government furnished equipment which he has installed.

1.7.2.1 Format and Size for Tags

The tags shall be similar in format and size to the exhibits provided by this specification, they shall be suitable for interior and exterior locations, resistant to solvents, abrasion, and to fading caused by sunlight, precipitation, etc. . These tags shall have a permanent pressure-sensitive adhesive back, and they shall be installed in a position that is easily (or most easily) noticeable. Contractor furnished equipment that has differing warranties on its components will have each component tagged.

1.7.2.2 Sample Tags

Sample tags shall be filled out representative of how the Contractor will complete all other tags. These tags shall be submitted to the Government.

1.7.2.3 Tags for Warranted Equipment:

The tag for this equipment shall be similar to the following. Exact format and size will be as approved.

EQUIPMENT WARRANTY CONTRACTOR FURNISHED EQUIPMENT	
MFG: _____	MODEL NO.: _____
SERIAL NO.: _____	CONTRACT NO.: _____
CONTRACTORS NAME: _____	
CONTRACTOR WARRANTY EXPIRES: _____	
MFG WARRANTY(IES) EXPIRE: _____	

EQUIPMENT WARRANTY GOVERNMENT FURNISHED EQUIPMENT	
MFG: _____	MODEL NO.: _____
SERIAL NO.: _____	CONTRACT NO.: _____
DATE EQUIPMENT PLACED IN SERVICE: _____	
MFG WARRANTY(IES) EXPIRES: _____	

1.7.2.4 Execution

The Contractor will complete the required information on each tag and install these tags on the equipment by the time of and as a condition of final acceptance of the equipment. All tags shall be mechanically attached to the equipment as directed by the Contracting Officer.

1.7.2.5 Equipment Warranty Tag Replacement.

The contractor shall provide new tags on repaired or replaced equipment during the warranty period. The tag shall be identical to the original tag, except that the Contractor's warranty expiration date shall be updated to show the correct warranty expiration date.

1.8 CONTRACTOR'S RESPONSE TO WARRANTY SERVICE REQUIREMENTS.

1.8.1 Notification to Warranty Service Requirements

Following oral or written notification by authorized representative of the installation designated in writing by the Contracting Officer, the Contractor shall respond to warranty service requirements in accordance with the "Warranty Service Priority List" and the three categories of priorities listed below.

1.8.1.1 Categories of Priorities

- a. First Priority Code 1: Perform on site inspection to evaluate situation, determine course of action, initiate work within 24 hours and work continuously to completion or relief.
- b. Second Priority Code 2: Perform on site inspection to evaluate situation, determine course of action, initiate work within 48 hours and work continuously to completion or relief.
- c. Third Priority Code 3: All other work to be initiated within 5 work days end work continuously to completion or relief.

1.8.1.2 Warranty Service Priority List

ELECTRICAL

Code 2:

- a. Power failure (no Power to any new connections),
- b. Pump and Tank Controls.
- c. Receptacle and lights.

HEAT

Code 1:

- a. Area power or element failure affecting heat.

PLUMBING

Code 2:

- a. Fountain Make-up Water
- b. Water pipe leaking.

FOUNTAIN

Code 1:

- a. System water leaks including storage tank.
- b. Broken pumps and fountain ancillary equipment.
- c. Fountain filter, heater, and chlorinator.

1.8.2 Availability of Required Parts

Should parts be required to complete the work and the parts are not immediately available the Contractor shall have a maximum of 12 hours after arrival at the job site to provide authorized representative of the installation with firm written plan for emergency alternatives and temporary repairs for Government participation with the Contractor to provide emergency relief until the required parts are available on site for the Contractor to perform permanent warranty repair. The Contractors plan shall include a firm date and time that the required parts shall be available on site to complete the permanent warranty repair.

PART 2 PRODUCTS - NOT APPLICABLE

PART 3 EXECUTION - NOT APPLICABLE

-- End of Section --

SECTION 01510

TEMPORARY CONSTRUCTION ITEMS 10/00

PART 1 GENERAL

1.1 General

The work covered by this section consists of furnishing all labor, materials, equipment, and services and performing all work required for or incidental to the items herein specified. No separate payment will be made for the construction and services required by this section, and all costs in connection therewith shall be included in the overall cost of the work unless specifically stated otherwise.

1.2 HAUL ROADS (1967)

The Contractor shall, at his expense, construct such access roads and haul roads as may be necessary for proper prosecution of the work under this contract. Haul roads shall be constructed in a workmanlike manner with suitable grades and widths. Sharp curves, blind corners, and dangerous cross traffic shall be avoided. The Contractor shall provide all necessary lighting, signs, barricades, and distinctive markings for the safe movement of traffic. The method of dust control although optional shall be adequate to insure safe operation at all times. Location, grade, width, and alignment of construction and hauling roads shall be subject to approval of the Contracting Officer. Upon completion of the work, haul roads as designated by the Contracting Officer shall be removed at the expense of the Contractor. Lighting shall be adequate to assure full and clear visibility for full width of haul and work areas during any night work operations. (CENAB)

1.3 BARRICADES

The Contractor shall erect and maintain temporary barricades to limit public access to hazardous areas. Such barricades shall be required whenever safe public access to paved areas such as roads, parking areas or sidewalks is prevented by construction activities or as otherwise necessary to ensure the safety of both pedestrian and vehicular traffic. Barricades shall be securely placed, clearly visible with adequate illumination to provide sufficient visual warning of the hazardous areas during both day and night. (CENAB)

1.4 MEASUREMENT AND PAYMENT

No separate measurement and payment will be made for the work performed in this Section 01510, TEMPORARY CONSTRUCTION ITEMS, specified herein, and all costs in connection therewith shall be considered a subsidiary obligation of the Contractor, and shall be included in the overall cost of the work.

PART 2 PRODUCT NOT APPLICABLE

**PART 3 EXECUTION
NOT APPLICABLE**

-- End of Section --

SECTION 01780

CLOSEOUT SUBMITTALS

11/99

Includes Special Change (Submittal Paragraph)(June 2000)

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted:

SD-18 Records

As-Built Drawings; GA|AR.

Drawings showing final as-built conditions of the project. The final CADD as-built drawings shall consist of one set of electronic CADD drawing files in the specified format, one set of mylar drawings, 2 sets of blue-line prints of the mylars, and one set of the approved working as-built drawings.

As-Built Record of Equipment and Materials; FIO.

Two copies of the record listing the as-built materials and equipment incorporated into the construction of the project.

Warranty Management Plan; GA|AR.

One set of the warranty management plan containing information relevant to the warranty of materials and equipment incorporated into the construction project, including the starting date of warranty of construction. The Contractor shall furnish with each warranty the name, address, and telephone number of each of the guarantor's representatives nearest to the project location.

Warranty Tags; GA|AR.

Two record copies of the warranty tags showing the layout and design.

Final Clean-Up; FIO.

Two copies of the listing of completed final clean-up items.

1.2 PROJECT RECORD DOCUMENTS

1.2.1 As-Built Drawings

This paragraph covers as-built drawings complete, as a requirement of the contract. The terms "drawings," "contract drawings," "drawing files," "working as-built drawings" and "final as-built drawings" refer to contract drawings which are revised to be used for final as-built drawings.

1.2.1.1 Government Furnished Materials

One set of electronic CADD files in the specified software and format revised to reflect all bid amendments will be provided by the Government at the preconstruction conference for projects requiring CADD file as-built drawings.

1.2.1.2 Working As-Built and Final As-Built Drawings

The Contractor shall revise 2 sets of paper drawings by red-line process to show the as-built conditions during the prosecution of the project. These working as-built marked drawings shall be kept current on a weekly basis and at least one set shall be available on the jobsite at all times. Changes from the contract plans which are made in the work or additional information which might be uncovered in the course of construction shall be accurately and neatly recorded as they occur by means of details and notes. Final as-built drawings shall be prepared after the completion of each definable feature of work as listed in the Contractor Quality Control Plan (Foundations, Utilities, Structural Steel, etc., as appropriate for the project). The working as-built marked prints and final as-built drawings will be jointly reviewed for accuracy and completeness by the Contracting Officer and the Contractor prior to submission of each monthly pay estimate. If the Contractor fails to maintain the working and final as-built drawings as specified herein, the Contracting Officer will deduct from the monthly progress payment an amount representing the estimated cost of maintaining the as-built drawings. This monthly deduction will continue until an agreement can be reached between the Contracting Officer and the Contractor regarding the accuracy and completeness of updated drawings. The working and final as-built drawings shall show, but shall not be limited to, the following information:

a. The actual location, kinds and sizes of all sub-surface utility lines. In order that the location of these lines and appurtenances may be determined in the event the surface openings or indicators become covered over or obscured, the as-built drawings shall show, by offset dimensions to two permanently fixed surface features, the end of each run including each change in direction. Valves, splice boxes and similar appurtenances shall be located by dimensioning along the utility run from a reference point. The average depth below the surface of each run shall also be recorded.

b. The location and dimensions of any changes within the building structure.

c. Correct grade, elevations, cross section, or alignment of roads, earthwork, structures or utilities if any changes were made from contract plans.

d. Changes in details of design or additional information obtained from working drawings specified to be prepared and/or furnished by the Contractor; including but not limited to fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment foundations, etc.

e. The topography, invert elevations and grades of drainage installed or affected as part of the project construction.

f. Changes or modifications which result from the final inspection.

g. Where contract drawings or specifications present options, only the option selected for construction shall be shown on the final as-built prints.

h. If borrow material for this project is from sources on Government property, or if Government property is used as a spoil area, the Contractor shall furnish a contour map of the final borrow pit/spoil area elevations.

i. Systems designed or enhanced by the Contractor, such as HVAC controls, fire alarm, fire sprinkler, and irrigation systems.

j. Modifications (change order price shall include the Contractor's cost to change working and final as-built drawings to reflect modifications) and compliance with the following procedures.

(1) Directions in the modification for posting descriptive changes shall be followed.

(2) A Modification Circle shall be placed at the location of each deletion.

(3) For new details or sections which are added to a drawing, a Modification Circle shall be placed by the detail or section title.

(4) For minor changes, a Modification Circle shall be placed by the area changed on the drawing (each location).

(5) For major changes to a drawing, a Modification Circle shall be placed by the title of the affected plan, section, or detail at each location.

(6) For changes to schedules or drawings, a Modification Circle shall be placed either by the schedule heading or by the change in the schedule.

(7) The Modification Circle size shall be 12.7 mm 1/2 inch diameter unless the area where the circle is to be placed is crowded. Smaller size circle shall be used for crowded areas.

1.2.1.3 Drawing Preparation

The as-built drawings shall be modified as may be necessary to correctly show the features of the project as it has been constructed by bringing the contract set into agreement with approved working as-built prints, and adding such additional drawings as may be necessary. These working as-built marked prints shall be neat, legible and accurate. These drawings are part of the permanent records of this project and shall be returned to the Contracting Officer after approval by the Government. Any drawings damaged or lost by the Contractor shall be satisfactorily replaced by the Contractor at no expense to the Government.

1.2.1.4 Computer Aided Design and Drafting (CADD) Drawings

Only personnel proficient in the preparation of CADD drawings shall be employed to modify the contract drawings or prepare additional new drawings. Additions and corrections to the contract drawings shall be equal in quality and detail to that of the originals. Line colors, line

weights, lettering, layering conventions, and symbols shall be the same as the original line colors, line weights, lettering, layering conventions, and symbols. If additional drawings are required, they shall be prepared using the specified electronic file format applying the same graphic standards specified for original drawings. The title block and drawing border to be used for any new final as-built drawings shall be identical to that used on the contract drawings. Additions and corrections to the contract drawings shall be accomplished using CADD files. The Contractor will be furnished AutoCad Release 14 software and a Windows NT operating system. The electronic files will be supplied on compact disc, read-only memory (CD-ROM). The Contractor shall be responsible for providing all program files and hardware necessary to prepare final as-built drawings. The Contracting Officer will review final as-built drawings for accuracy and the Contractor shall make required corrections, changes, additions, and deletions.

a. CADD colors shall be the "base" colors of red, green, and blue. Color code for changes shall be as follows:

(1) Deletions (red) - Deleted graphic items (lines) shall be colored red with red lettering in notes and leaders.

(2) Additions (Green) - Added items shall be drawn in green with green lettering in notes and leaders.

(3) Special (Blue) - Items requiring special information, coordination, or special detailing or detailing notes shall be in blue.

b. The Contract Drawing files shall be renamed in a manner related to the contract number (i.e., 98-C-10.DGN) as instructed in the Pre-Construction conference. Marked-up changes shall be made only to those renamed files. All changes shall be made on the layer/level as the original item. There shall be no deletions of existing lines; existing lines shall be over struck in red. Additions shall be in green with line weights the same as the drawing. Special notes shall be in blue on layer #63.

c. When final revisions have been completed, the cover sheet drawing shall show the wording "RECORD DRAWING AS-BUILT" followed by the name of the Contractor in letters at least 5 mm 3/16 inch high. All other contract drawings shall be marked either "AS-Built" drawing denoting no revisions on the sheet or "Revised As-Built" denoting one or more revisions. Original contract drawings shall be dated in the revision block.

d. Within 10 days for contracts less than \$5 million after Government approval of all of the working as-built drawings for a phase of work, the Contractor shall prepare the final CADD as-built drawings for that phase of work and submit two sets of blue-lined prints of these drawings for Government review and approval. The Government will promptly return one set of prints annotated with any necessary corrections. Within 7 days for contracts less than \$5 million the Contractor shall revise the CADD files accordingly at no additional cost and submit one set of final prints for the completed phase of work to the Government. Within 10 days for contracts less than \$5 million of substantial completion of all phases of work, the Contractor shall submit the final as-built drawing package for the entire project. The submittal shall consist of one set of electronic files on compact disc, read-only memory (CD-ROM), one set of mylars, two sets of blue-line prints and one set of the approved working as-built drawings. They shall be complete in all details and identical in form and function to the contract drawing files supplied by the Government. Any transactions or adjustments necessary to accomplish this is the responsibility of the Contractor. The Government reserves the right to reject any

drawing files it deems incompatible with the customer's CADD system. Paper prints, drawing files and storage media submitted will become the property of the Government upon final approval. Failure to submit final as-built drawing files and marked prints as specified shall be cause for withholding any payment due the Contractor under this contract. Approval and acceptance of final as-built drawings shall be accomplished before final payment is made to the Contractor.

1.2.1.5 Payment

No separate payment will be made for as-built drawings required under this contract, and all costs accrued in connection with such drawings shall be considered a subsidiary obligation of the Contractor.

1.2.2 As-Built Record of Equipment and Materials

The Contractor shall furnish one copy of preliminary record of equipment and materials used on the project 15 days prior to final inspection. This preliminary submittal will be reviewed and returned 2 days after final inspection with Government comments. Two sets of final record of equipment and materials shall be submitted 10 days after final inspection. The designations shall be keyed to the related area depicted on the contract drawings. The record shall list the following data:

RECORD OF DESIGNATED EQUIPMENT AND MATERIALS DATA

Description	Specification Section	Manufacturer and Catalog, Model, and Serial Number	Composition and Size	Where Used
-------------	--------------------------	---	-------------------------	---------------

1.2.3 Final Approved Shop Drawings

The Contractor shall furnish final approved project shop drawings 30 days after transfer of the completed facility.

1.2.4 Construction Contract Specifications

The Contractor shall furnish final as-built construction contract specifications, including modifications thereto, 30 days after transfer of the completed facility.

1.2.5 Real Property Equipment

The Contractor shall furnish a list of installed equipment furnished under this contract. The list shall include all information usually listed on manufacturer's name plate. The "EQUIPMENT-IN-PLACE LIST" shall include, as applicable, the following for each piece of equipment installed: description of item, location (by room number), model number, serial number, capacity, name and address of manufacturer, name and address of equipment supplier, condition, spare parts list, manufacturer's catalog, and warranty. A draft list shall be furnished at time of transfer. The final list shall be furnished 30 days after transfer of the completed facility.

1.3 WARRANTY MANAGEMENT

1.3.1 Warranty Management Plan

The Contractor shall develop a warranty management plan which shall contain information relevant to the clause Warranty of Construction. At least 30 days before the planned pre-warranty conference, the Contractor shall submit the warranty management plan for Government approval. The warranty management plan shall include all required actions and documents to assure that the Government receives all warranties to which it is entitled. The plan shall be in narrative form and contain sufficient detail to render it suitable for use by future maintenance and repair personnel, whether tradesmen, or of engineering background, not necessarily familiar with this contract. The term "status" as indicated below shall include due date and whether item has been submitted or was accomplished. Warranty information made available during the construction phase shall be submitted to the Contracting Officer for approval prior to each monthly pay estimate. Approved information shall be assembled in a binder and shall be turned over to the Government upon acceptance of the work. The construction warranty period shall begin on the date of project acceptance and shall continue for the full product warranty period. A joint 4 month and 9 month warranty inspection shall be conducted, measured from time of acceptance, by the Contractor, Contracting Officer and the Customer Representative. Information contained in the warranty management plan shall include, but shall not be limited to, the following:

a. Roles and responsibilities of all personnel associated with the warranty process, including points of contact and telephone numbers within the organizations of the Contractors, subcontractors, manufacturers or suppliers involved.

b. Listing and status of delivery of all Certificates of Warranty for extended warranty items, to include roofs, HVAC balancing, pumps, motors, transformers, and for all commissioned systems such as fire protection and alarm systems, sprinkler systems, lightning protection systems, etc.

c. A list for each warranted equipment, item, feature of construction or system indicating:

1. Name of item.
2. Model and serial numbers.
3. Location where installed.
4. Name and phone numbers of manufacturers or suppliers.
5. Names, addresses and telephone numbers of sources of spare parts.
6. Warranties and terms of warranty. This shall include one-year overall warranty of construction. Items which have extended warranties shall be indicated with separate warranty expiration dates.
7. Cross-reference to warranty certificates as applicable.
8. Starting point and duration of warranty period.
9. Summary of maintenance procedures required to continue the warranty in force.
10. Cross-reference to specific pertinent Operation and Maintenance manuals.
11. Organization, names and phone numbers of persons to call for warranty service.
12. Typical response time and repair time expected for various warranted equipment.

d. The Contractor's plans for attendance at the 4 and 9 month post-construction warranty inspections conducted by the Government.

e. Procedure and status of tagging of all equipment covered by extended warranties.

f. Copies of instructions to be posted near selected pieces of equipment where operation is

critical for warranty and/or safety reasons.

1.3.2 Performance Bond

The Contractor's Performance Bond shall remain effective throughout the construction period.

a. In the event the Contractor fails to commence and diligently pursue any construction warranty work required, the Contracting Officer will have the work performed by others, and after completion of the work, will charge the remaining construction warranty funds of expenses incurred by the Government while performing the work, including, but not limited to administrative expenses.

b. In the event sufficient funds are not available to cover the construction warranty work performed by the Government at the Contractor's expense, the Contracting Officer will have the right to recoup expenses from the bonding company.

c. Following oral or written notification of required construction warranty repair work, the Contractor shall respond in a timely manner. Written verification will follow oral instructions. Failure of the Contractor to respond will be cause for the Contracting Officer to proceed against the Contractor.

1.3.3 Pre-Warranty Conference

Prior to contract completion, and at a time designated by the Contracting Officer, the Contractor shall meet with the Contracting Officer to develop a mutual understanding with respect to the requirements of this section. Communication procedures for Contractor notification of construction warranty defects, priorities with respect to the type of defect, reasonable time required for Contractor response, and other details deemed necessary by the Contracting Officer for the execution of the construction warranty shall be established/reviewed at this meeting. In connection with these requirements and at the time of the Contractor's quality control completion inspection, the Contractor shall furnish the name, telephone number and address of a licensed and bonded company which is authorized to initiate and pursue construction warranty work action on behalf of the Contractor. This point of contact will be located within the local service area of the warranted construction, shall be continuously available, and shall be responsive to Government inquiry on warranty work action and status. This requirement does not relieve the Contractor of any of its responsibilities in connection with other portions of this provision.

1.3.4 Contractor's Response to Construction Warranty Service Requirements

Following oral or written notification by the Contracting Officer, the Contractor shall respond to construction warranty service requirements in accordance with the "Construction Warranty Service Priority List" and the three categories of priorities listed below. The Contractor shall submit a report on any warranty item that has been repaired during the warranty period. The report shall include the cause of the problem, date reported, corrective action taken, and when the repair was completed. If the Contractor does not perform the construction warranty within the timeframes specified, the Government will perform the work and backcharge the construction warranty payment item established.

a. First Priority Code 1. Perform onsite inspection to evaluate situation, and determine course of action within 4 hours, initiate work within 6 hours and work continuously to completion or relief.

b. Second Priority Code 2. Perform onsite inspection to evaluate situation, and determine course of action within 8 hours, initiate work within 24 hours and work continuously to completion or relief.

c. Third Priority Code 3. All other work to be initiated within 3 work days and work continuously to completion or relief.

d. The "Construction Warranty Service Priority List" is as follows:

Code 2-Electrical

- (1) Power failure (no power to any new connections).
- (2) Pump and tank controls.
- (3) Receptacle and lights.

Code 1-Heat

- (1). Area power or element failure affecting heat.

Code 2-Plumbing

- (1) Fountain Make-up water.
- (2) Water pipe leaking

Code 1-Fountain

- (1) System water leaks including storage tank.
- (2) Broken pumps and fountain ancillary equipment.
- (3) Fountain filter, heater, chlorinator.

Code 3-All other work not listed above.

1.3.5 Warranty Tags

At the time of installation, each warranted item shall be tagged with a durable, oil and water resistant tag approved by the Contracting Officer. Each tag shall be attached with a copper wire and shall be sprayed with a silicone waterproof coating. The date of acceptance and the QC signature shall remain blank until project is accepted for beneficial occupancy. The tag shall show the following information.

- a. Type of product/material_____.
- b. Model number_____.
- c. Serial number_____.
- d. Contract number_____.
- e. Warranty period_____ from_____ to_____.
- f. Inspector's signature_____.
- g. Construction Contractor_____.
- Address_____.

RECORD OF DESIGNATED EQUIPMENT AND MATERIALS DATA

Telephone number_____.

h. Warranty contact_____.

Address_____.

Telephone number_____.

i. Warranty response time priority code_____.

j. **WARNING - PROJECT PERSONNEL TO PERFORM ONLY OPERATIONAL MAINTENANCE DURING THE WARRANTY PERIOD.**

1.4 MECHANICAL TESTING, ADJUSTING, BALANCING, AND COMMISSIONING

Prior to final inspection and transfer of the completed facility; all reports, statements, certificates, and completed checklists for testing, adjusting, balancing, and commissioning of mechanical systems shall be submitted to and approved by the Contracting Officer as specified in applicable technical specification sections.

1.5 OPERATION AND MAINTENANCE MANUALS

Operation manuals and maintenance manuals shall be submitted as specified. Operation manuals and maintenance manuals provided in a common volume shall be clearly differentiated and shall be separately indexed.

1.6 FINAL CLEAN-UP

The premises shall be left broom clean. Stains, foreign substances, and temporary labels shall be removed from surfaces. Carpet and soft surfaces shall be vacuumed. Equipment and fixtures shall be cleaned to a sanitary condition. Filters of operating equipment shall be [cleaned] [replaced]. Debris shall be removed from roofs, drainage systems, gutters, and downspouts. Paved areas shall be swept and landscaped areas shall be raked clean. The site shall have waste, surplus materials, and rubbish removed. The project area shall have temporary structures, barricades, project signs, and construction facilities removed. A list of completed clean-up items shall be submitted on the day of final inspection.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

-- End of Section --